



# ATPESC 2017

July 30–August 11

## PROGRAM CURRICULUM

Renowned scientists, HPC experts, and leaders serve as lecturers and guide hands-on sessions. ATPESC participants will be granted access to DOE Office of Science User Facilities, which are amongst the most powerful supercomputers in the world.

The core curriculum includes:

- ☐ Computer architectures and their predicted evolution
- ☐ Programming methodologies effective across a variety of today's supercomputers and that are expected to be applicable to exascale systems
- ☐ Numerical algorithms and mathematical software
- ☐ Approaches to building community codes for HP systems
- ☐ Data analysis, visualization, I/O, and methodologies and tools for Big Data applications
- ☐ Performance measurement and debugging tools

Argonne Training Program on Extreme-Scale Computing (ATPESC) is an intensive two-week program focused on HPC methodologies that are applicable to both current and future machine architectures, including exascale systems.

ATPESC provides advanced training to 60 participants. Qualified applicants must have:

- ☐ Substantial experience in MPI and/or OpenMP programming,
- ☐ Used at least one HPC system for a complex application, and
- ☐ Plans to conduct CS&E research on large-scale computers.

Admission to the ATPESC program is highly competitive. Participant support is provided, including domestic airfare, meals, and lodging.

ATPESC is part of the Exascale Computing Project, a collaborative effort of the DOE Office of Science and the National Nuclear Security Administration.

## APPLICATION DETAILS

**Applications for ATPESC 2017 are due by March 10, 2017.** All doctoral students, postdocs, and computational scientists are encouraged to submit applications. To apply, visit the ATPESC website at [extremecomputingtraining.anl.gov](http://extremecomputingtraining.anl.gov)